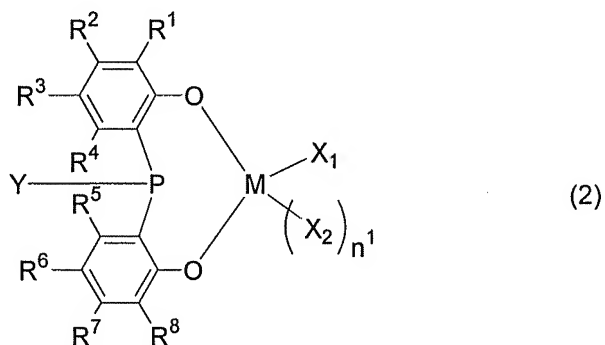


AMENDMENTS TO THE CLAIMS

1. - 2. (Canceled)

3. (Currently Amended) The A transition metal complex according to claim 1, wherein the compound of formula (1) is a compound of formula (2):



wherein M represents Cr an element of Group 6 of Periodic Table of Elements,

Y represents a substituted or unsubstituted C1-10 alkyl group,

a substituted or unsubstituted C7-20 aralkyl group,

a substituted or unsubstituted C6-20 aryl group,

a silyl group substituted with substituted or unsubstituted C1-20 hydrocarbon,

R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and R⁸ are the same or different and represent a hydrogen atom,

a halogen atom, an C1-10 alkyl group, an C1-10 alkoxyl group, or

a silyl group substituted with C1-20 hydrocarbon,

X¹ and X² are the same or different, and represent a hydrogen atom, a halogen atom,

a substituted or unsubstituted C1-10 alkyl group,

a substituted or unsubstituted C7-20 aralkyl group,

a substituted or unsubstituted C6-20 aryl group,

a substituted or unsubstituted C1-10 alkoxy group,
a substituted or unsubstituted C7-20 aralkyloxy group,
a substituted or unsubstituted C6-20 aryloxy group, or
an amino group disubstituted C1-20 hydrocarbon, and
 n^1 is an integer of 0 to 3.

4. (Currently Amended) The transition metal complex according to claim 3 ~~any one of claims 1 to 3~~, wherein Y is a substituted or unsubstituted C1-10 alkyl group, or a substituted or unsubstituted C6-20 aryl group.

5. (Canceled)

6. (Currently Amended) An olefin polymerization catalyst obtained by combining the transition metal complex as defined in claim 3 or 4 ~~claim 4~~ with the following compound (A),

Compound (A): any one of the following compounds (A₁) to (A₃), or a mixture of two or more of them

(A₁): an organic aluminum compound of formula $(E_1)_aAl(Z')_{(3-a)}$,

(A₂): cyclic aluminosiloxane having a structure of formula $\{-Al(E_2)-O-\}_b$,

(A₃): linear aluminosiloxane having a structure of formula $(E_3)\{-Al(E_3)-O-\}_cAl(E_3)_2$

wherein E₁ to E₃ are the same or different, and represent a C1-8 hydrocarbon group, Z's are the same or different, and represent a hydrogen atom or a halogen atom, a represents 1, 2 or 3, b is an integer of 2 or more, and c represents an integer of 1 or more.

7. (Original) The olefin polymerization catalyst according to claim 6, which is obtained by further combining the following compound (B),

Compound (B): any one of the following compounds (B₁) to (B₃), or a mixture of two or more of them

(B₁): a boron compound of formula BQ₁Q₂Q₃,

(B₂): a boron compound of formula Z⁺(BQ₁Q₂Q₃Q₄)⁻,

(B₃): a boron compound of formula (L-H)⁺(BQ₁Q₂Q₃Q₄)⁻,

wherein B is a trivalent boron atom, Q₁ to Q₄ are the same or different and represent a halogen atom, a C1-20 hydrocarbon group, a halogenated C1-20 hydrocarbon group, a silyl group substituted with C1-20 hydrocarbon, an C1-20 alkoxy group, or an amino group disubstituted with C1-20 hydrocarbon, Z⁺ represents an inorganic or organic cation, and L represents a neutral Lewis base.

8.-9. (Canceled)

10. (Currently Amended) A process for preparing an olefin polymer, which comprises polymerizing olefin ~~utilizing~~ by contacting an olefin with an olefin polymerization catalyst as defined in claim 6.

11. (Canceled)

12. (New) A process for preparing an olefin polymer, which comprises polymerizing olefin by contacting an olefin with the olefin polymerizing catalyst as defined in claim 7.